

migrant health

State of California
DEPARTMENT OF PUBLIC HEALTH

MEMORANDUM

TO: Wilton L. Halverson, M.D. DATE: November 30, 1949

FROM: Anita E. Faverman, M.D.

SUBJECT: Supplementary Report - Infant Mortality and Diarrhea in Kings
and Fresno Counties

I REPORT ON INFANT DEATHS FROM MALNUTRITION, DIARRHEA AND ENTERITIS, AND
PNEUMONIA - FRESNO AND KINGS COUNTIES - OCTOBER AND NOVEMBER 1949

Number and Causes of Death:

18 infant deaths, attributed to these causes, occurred in Fresno
County in the 20-day period, October 23, 1949
to November 11, 1949.

10 such deaths occurred in Kings County in the 4-week period,
October 9, 1949 to November 5, 1949.

Of these 28 deaths, malnutrition was given as an underlying cause
in 10 cases.

Causes of Death (from death certificate or hospital data):

Malnutrition	2
Malnutrition and diarrhea	6
Malnutrition, diarrhea and pneumonia	1
Malnutrition, and pneumonia	1
Gastro-enteritis, dehydration, acidosis	9
Gastro-enteritis and pneumonia	4
Gastro-enteritis in prematures	2
Lobar pneumonia (1 showed massive lung infiltration and adrenal hemorrhage)	2
Bronchopneumonia	

Race Distribution:

Mexican 24
White 4

Age Distribution: The age distribution showed that 22 of these 28 infants were under 6 months of age.

Age at Death:

Under 1 month	1	7 months	1
1 month	3	8 months	2
2 months	3	9 months	1
3 months	7	10 months	1
4 months	5	13 months	1
5 months	3		

Place of Death and Length of Hospitalization:

16 deaths occurred in hospitals; of these, 13 succumbed after less than 1 day of hospitalization

2 infants died en route to the hospital

3 infants died in physicians' offices

3 infants died in labor camps

Duration of Illness:

The duration of illness was difficult to determine; however, in 5 instances, it appeared to be not more than a day. Generally, this fulminating course was associated with underlying malnutrition.

Source of Cases:

14, or half of the cases, came from 8 large labor camps, operated by growers. It should be pointed out that at this time of the year there is a large concentration of people in these camps. Only one infant belonged to a family who had been life-time residents of rural Hanford.

In summary, practically all these infants came from agricultural laborers' families, half of them from large labor camps, the majority were Mexican infants less than 6 months of age. Underlying malnutrition or delay in obtaining treatment seemed important factors in these deaths.

The breakdowns by counties and by case data are appended.

II INFANT MORTALITY AND DIARRHEA DEATHS IN THE SAN JOAQUIN VALLEY

The problem of infant mortality and diarrheal deaths in this area is not a new one. In 1948, 148 infants died of diarrhea and enteritis in the 6 San Joaquin Valley cotton counties (Fresno, Kings, Kern, Merced, Madera and Tulare).

The San Joaquin Valley counties have consistently shown a higher infant mortality rate from diarrhea and enteritis than the state as a whole. It is true that these rates have fallen over a period of years, yet the 1948 data for the San Joaquin Valley area (includes San Joaquin and Stanislaus Counties as well as the 6 cotton counties listed) showed the infant mortality rate from diarrhea and enteritis, 5.5, was three times the rate for the state as a whole, 1.8.

Moreover, the percentage of infant deaths from this cause is at least twice as high in this area as compared with the state as a whole. During the four-year period 1945-1948, 6.6% of infant deaths were attributed to diarrhea and enteritis in the state, while 14.5% were attributed to this cause in 6 San Joaquin Valley counties (Fresno, Kern, Kings, Merced, Madera and Tulare). During this period, 27% of the state's infant deaths due to diarrhea and enteritis occurred in these 6 counties. In 1948, 9.3% of the state's births occurred in these counties.

Pneumonia accounted for 10.7% of infant deaths in the state during 1945-1948 and for 12.5% of the infant deaths which occurred in these 6 counties.

INFANT DEATHS (1945-1948)

CALIFORNIA AND SIX* SELECTED SAN JOAQUIN VALLEY COUNTIES						
TOTAL	1945	1946	1947	1948	Total (4-yr. period)	
					Number	Per Cent
California	5,978	6,678	7,207	6,861	26,324	100%
Diarrhea and enteritis	427	391	499	414	1,731	6.6%
Pneumonia	738	723	693	677	2,831	10.7%
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TOTAL						
6 Counties (all causes)	650	743	937	932	3,262	100%
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Diarrhea	92	99	137	145	473	14.5%
Pneumonia	113	98	86	112	409	12.5%

* Includes Fresno, Kern, Kings, Tulare, Merced and Madera Counties

Although diarrhea and enteritis is not as prominent as a cause of mortality in the 1 - 4 age group as in the first year of life, during 1945-1948, 6% of deaths in the 1 - 4 age group were attributed to diarrhea and enteritis in these 6 San Joaquin Valley counties as compared to 3.2% for the state as a whole. Moreover, 25% of the state's diarrhea and enteritis deaths in this age group occurred in these 6 counties.

III HEALTH SUPERVISION OF CHILDREN OF MIGRANT WORKERS

None of the three health departments visited (Fresno, Kings and Tulare) feel that they are able to make much dent in this problem, though all have established at least one child health conference center in or near labor camp areas.

Fresno:	at the Firebaugh Westside Growers' Camp and at Mendota
Kings:	in Corcoran
Tulare:	at Woodville and Linnell Camps, Tagus Ranch, Alpaugh, Earlimart and Pixley

Tulare seems to have the best coverage from the standpoint of distribution of these centers. The problems of health department supervision are complicated by the seasonal population influx, lack of staff to meet these needs and in some instances, by the reluctance of the families to take advantage of the services offered. Obviously, health education at a "grass root" level is needed to help motivate these families, as well as a great extension of facilities in some areas. The study of the deaths during the past weeks in Fresno County and Kings County pointed out that underlying malnutrition was an important factor in a number of deaths.

Apathy, ignorance, and frequently lack of food and lack of money are contributing factors in this problem as are the migrants' way of life and living conditions and the need for the women to work in the field with little time and energy for child care. Moreover, the poor condition of these very young infants suggests the need for better prenatal supervision and nutritional guidance of expectant mothers as well as infants.

In regard to immunization programs, difficulties or reluctance on the part of the health departments to carry the program to the camps, the need to reach the infant and preschool age groups, and the mobility of these families complicate this situation.

IV HOUSING AND SUPERVISION OF SANITARY FACILITIES IN LABOR CAMPS

In general, housing facilities for year-round workers have been improved over the past few years. This is especially noticeable in farms which have diversified and, therefore, employ more year-round workers.

In Kings County, some of the larger permanent camps have made substantial improvements during the past few years. However, during peak labor demands, these camps are doubled in capacity by the addition of tents.

This throws a strain on privy and garbage facilities. Moreover, there is nowhere any consistent maintenance of facilities, nor any attempt at organizing and stimulating such responsibility among the workers and their families. In general, sanitation in camps leaves much to be desired with sewage and garbage disposal major problems.

Mr. Ralph Bunje, of the San Joaquin Agricultural Labor Bureau, representing the growers, states that growers would be more prone to improve workers' housing, if they would get income tax reduction over a three-year period instead of twenty years, as at present. However, in any event, the smaller growers would find it difficult to provide housing up to standard. Nevertheless, Mr. Bunje insists that housing should be provided by the grower. He disapproves of larger units serving several farms or areas, and implies that this promotes labor problems.

Mr. Bunje feels that there is a definite trend toward mechanized cotton picking. He estimates that there are now about 800 - 900 cotton picking machines in the valley, mainly operated by large growers. (The price of the machines would make them more prohibitive for smaller growers.) In addition, it is estimated that about 103,000 to 130,000 people are picking cotton in the valley this year, approximately 10,000 to 13,000 more than were required to pick last year's harvest due to increased planting. There was less migration than usual from the midwest this year, as the midwest had good crops. (This may partly account for the preponderance of deaths in Mexican babies and may also show that the composition of the migrant population has reshifted with less midwesterners and more of our own state's migrant agricultural laborers.) However, he states that this is the first year they have not had to advertise out of state for help.

Under the Labor Code, supervision of labor camp facilities is the responsibility of the Division of Immigration and Housing. Apparently, this division has never had the staff to carry out an effective program. Each of their field representatives covers about five counties, yet it is estimated that Fresno County alone has some 200 camps. The health department has no clear-cut legal responsibilities in this field, though their sanitarians have been spending considerable time in the camps these past few weeks. Tulare County reports considerable conflict with the representative of the Division of Immigration and Housing who frequently countermands the health department's recommendations. An example cited is related to Tagus Ranch, which last year had three cases of typhoid. The health department, after considerable work, persuaded the ranch manager to install septic tank sewage disposal but this was not supported by the Division of Immigration and Housing and no changes were made.

The health departments feel that there is a job to be done here and that local health department responsibility with more staff would be an answer. As a minimum, there is need for clarifying and defining the responsibility of the health department and the Division of Immigration and Housing and coordinating these activities.

Kings County has enacted a local ordinance effective November 18, 1949, which will require permits from the local health department for the operation of a camp. This, they hope, will reduce the erection of temporary camps with inadequate sanitary provisions.

V RELATED PROBLEMS - WELFARE AND EDUCATION

Valley counties are already apprehensive over the problems of relief which are anticipated when cotton picking is over by December 15. Although some of the families will return to a home base for the winter months, many of them stay on and few will have saved money for the lean months. It might also be pointed out that while there was plenty of work in cotton this year, there was less work than usual in fruit, where much of the crop was not picked.

County relief is available to residents though local interpretations as to eligibility vary. In Kings County, some planning has already been done to establish a central agency for help for non-residents, which plans to canvass church groups and similar organizations for funds and hopes to obtain surplus foods from the Department of Agriculture. Other areas have expressed the hope that delay in making plans for relief will encourage these people to move on. Moreover, fear was expressed by Mr. Bunje that setting up relief, even though minimal, results in additional people moving into the area. In former years, the counties handled this problem by supplying the migrant with 5 gallons of gas to enable him to move on to the next county.

Education: No first-hand information was obtained at this time. However, we learned that in Kings County, the migrant schools on skids have been eliminated. Some of the smaller permanent schools have been enlarged in hopes of taking care of the migrant children, who are picked up by school bus. It was hoped that this plan would enable the migrant children to intermingle with the other residing in these areas.

Overcrowding of schools, understaffing, high peak enrollments for short periods and frequent moving continue to complicate this problem. In one school visited by a member of our staff, there was one teacher for a group of 100 children of all ages and grades.

VI CONCLUSIONS

1. There is need for more extensive epidemiological study of the problem of diarrhea and diarrheal deaths in infants in the San Joaquin Valley area. Etiology, sources, environmental factors, variations in symptoms and factors precipitating death all need clarification.
2. On the basis of data now available, the following needs are apparent:
 - a. Better sanitary supervision of labor housing than now available:
It is suggested that this be made a health department responsibility. Additional sanitarian staff will be needed.

- b. Improved housing and sanitary facilities: State and locally operated camps to supplement good growers' camps might be an approach to this problem.
- c. Immunization: A coordinated regional immunization program should be planned in this valley area, and if necessary, additional staff provided by our Department (by direct assignment or payment of local physicians).

- d. Extension of health supervision and health education services: It is very important that these services be carried directly to the camps. The Migratory Demonstration, conducted by our Department (1936-1938) showed that such services are welcomed by the people and by camp management. (Earlier this year, owners of two camps in Kings County contributed \$25 each to cover costs of a series of nutrition classes held in their camps under the auspices of the Health Department.)

The staff required for such services would include medical, nursing, nutrition, health education and sanitation personnel. These could be provided by (1) state-assigned teams working under the local health departments or (2) by state and local financial participation to support such special teams. This latter plan would encourage more local responsibility and participation. A state consultant team would be valuable for the first year or two. It is suggested that the Department call a meeting of the San Joaquin Valley Health Officers to consider these proposals.

- e. Medical Care Facilities: In view of the distances of some of these camps from county hospitals, decentralized clinics or arrangements by Boards of Supervisors with physicians practicing in the areas to care for these infants, would provide a means for reducing fatal delay. (According to Dr. Rohlfing, this latter plan was made permissive at the last legislative sessions.) Physicians utilized in such a program should have access to consultation and should be oriented in the diagnostic and therapeutic aspects of infantile diarrhea.

Changes in the philosophy of county hospitals to permit more out-patient follow-up might reduce recurrences or inadequate convalescence. (It was pointed out that in Fresno County only one out-patient visit is allowed these patients following hospitalization.)

Contracts by Boards of Supervisors for emergency care in hospitals closer to camp areas (such as the new Corcoran Hospital in Kings County or the Dos Palos Hospital, Merced, for Fresno County cases) would reduce delay in emergency hospital care.

Finally, it should be pointed out that a coordinated approach to the problems of labor demands, housing, sanitation, health services and education, medical care, welfare, education and recreation is essential. A unified attack on these problems as they affect a large migratory group of California is extremely difficult because of the many agencies and jurisdictions involved. The economy of California requires that a large number of its citizens follow the crops; yet in so doing, they cut themselves off from the rights and privileges of county citizenship. Under such circumstances, what is the proper responsibility of the State government? It is respectfully suggested that the Governor appoint a Committee to study this problem.

Anita E. Faverman, M.D., Ass't. Chief
Bureau of Maternal and Child Health

SUMMARY OF FRESNO COUNTY CASES

Fresno County: 18 infant deaths from diarrhea and enteritis, malnutrition
and pneumonia: 20-day period, October 23, 1949 to
November 11, 1949.

Cause of Death:

Malnutrition and diarrhea	4
Malnutrition, diarrhea and pneumonia	1
Gastro-enteritis, dehydration, acidosis	7
Gastro-enteritis in prematures	2
Gastro-enteritis and pneumonia	4

Race Distribution:

Mexican	15
White	3

Age Distribution:

Under 1 month	1
1 month	3
3 months	5
4 months	4
5 months	3
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Total under 6 months	16
7 months	1
8 months	1

Place of Death:

Hospital.	11
Fresno General	9
Sanger Hospital	1
St. Agnes	1

Fresno County (Continued)

Place of Death (Continued)

Labor Camps.	3
Murietta Farms, Mendota	2
Giffin #9, Huron	1
M. D.'s office.	1
En route to hospital	1
Not stated	2

Length of Hospital Stay:

1 day or less	9
less than 1 hour	1
1 - 12 hours	3
12 hours - 1 day	5
2 days	1
12 days	1

Duration of Illness: (from death certificate or hospital record)

1 day	3
2 days	3
5 days	2
6 days	1
7 days	1
3 weeks	1
1 month (intermittent)	1
2 $\frac{1}{2}$ months (intermittent)	2
Not specified	4

Fresno County (Continued)

Sources:

Huron	3
Giffin #9	1
Tiodora Verelis	1
Rural - Huron	1
Mendota	4
Murietta Farms	2
Enterprise Ranch	1
Rural	1
5 points	3
Giffin Camp	2
Not stated	1
Tranquillity	2
Camp 3, Tranquillity	2
Rural - Coalinga1
Rural - Firebaugh	1
Sanger2
Riverdale	1
Malaga1

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